

Applicant: PATEL

Atty. Ref.: 11836.0582.CNUS01

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) An invert emulsion fluid having utility for drilling, completing, or working over subterranean wells, said fluid comprising:

- a) an oleaginous fluid;
- b) a non-oleaginous fluid;
- c) a weighting material; and
- d) an amine surfactant having the structure

$$R$$
— N
 $(CH_2CHR'A)_x H$
 $(CH_2CHR'A)_y H$

wherein R is a C_{12} - C_{22} aliphatic hydrocarbon; R' is an independently selectable from hydrogen or C_1 to C_3 alkyl; A is NH or O, and $1 \le x \le x + y \le 3$.

- 2. (Original) The invert emulsion fluid of claim 1 wherein said oleaginous fluid comprises from about 30% to about 99% by volume of said fluid.
- 3. (Original) The invert emulsion fluid of claim 1 wherein said oleaginous fluid is selected from a group consisting of diesel oil, mineral oil, a synthetic oil, and combinations thereof.
- 4. (Previously presented) The invert emulsion fluid of claim 1 wherein said oleaginous fluid comprises from 5% to about 100% by volume of the oleaginous fluid a material selected from a group consisting of esters, ethers, acetals, di-alkylcarbonates, hydrocarbons, and combinations thereof.



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5. (Original) The invert emulsion fluid of claim 1 wherein said non-oleaginous fluid comprises from about 1% to about 70% by volume of said fluid.

- 6. (Original) The invert emulsion fluid of claim 1 wherein said non-oleaginous fluid is an aqueous liquid.
- 7. (Original) The invert emulsion fluid of claim 6 wherein said aqueous liquid is selected from the group consisting of sea water, a brine containing organic or inorganic dissolved salts, a liquid containing water-miscible organic compounds, and combinations thereof.
 - 8. (Original) The invert emulsion fluid of claim 1 wherein R is unsaturated.
- 9. (Previously presented) The invert emulsion of claim 1 further comprising a bridging agent.
- 10. (Original) The invert emulsion of claim 9 wherein the weighting or bridging agent is selected form the group consisting of calcium carbonate, dolomite, siderite, barite, celestite, iron oxides, manganese oxides, ulexite, carnalite, and sodium chloride.
- 11. (Original) The invert emulsion of claim 1 wherein said amine surfactant is selected from diethoxylated tallow amine; diethoxylated soya amine; N-aliphatic-1,3-diaminopropane wherein the aliphatic group is a C_{12} to C_{22} hydrocarbon; or combinations thereof.
- 12. (Currently Amended) An invert emulsion fluid having utility for drilling completing, or working over subterranean wells, said fluid comprising:
 - a) an oleaginous liquid, said oleaginous liquid comprising from about 30% to about 99% by volume of said fluid;
 - b) a non-oleaginous liquid, said non-oleaginous liquid comprising from about 1% to about 70% by volume of said fluid;



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c) a weighting agent; and

d) an amine surfactant present in said fluid at a concentration of 0.1% to 5.0% by weight of said fluid, said amine surfactant having a structure of:

$$R$$
— N
 $(CH_2CHR'A)_X H$
 $(CH_2CHR'A)_Y H$

wherein R is a C_{12} - C_{22} aliphatic hydrocarbon; R' is an independently selectable from hydrogen or C_1 to C_3 alkyl; A is NH or O, and $1 \le - < x+y \le 3$.

- 13. (Original) The invert emulsion fluid of claim 12 wherein said oleaginous liquid is selected from a group consisting of diesel oil, mineral oil, a synthetic oil, and combinations thereof.
- 14. (Previously Presented) The invert emulsion fluid of claim 13 wherein said oleaginous fluid comprises from 5% to about 100% by volume of the oleaginous fluid a material selected from a group consisting of esters, ethers, acetals, di-alkylcarbonates, hydrocarbons, and combinations thereof.
- 15. (Original) The invert emulsion fluid of claim 14 wherein said non-oleaginous liquid is an aqueous liquid.
- 16. (Original) The invert emulsion fluid of claim 15 wherein said aqueous liquid is selected from the group consisting of sea water, a brine containing organic or inorganic dissolved salts, a liquid containing water-miscible organic compounds, and combinations thereof.
 - 17. (Original) The invert emulsion fluid of claim 12 wherein R is unsaturated.



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18. (Original) The invert emulsion of claim 12 wherein said amine surfactant is selected from diethoxylated tallow amine; diethoxylated soya amine; N-aliphatic-1,3-diaminopropane wherein the aliphatic group is a C_{12} to C_{22} hydrocarbon; or combinations thereof.

- 19-22. Canceled
- 23. Canceled
- 24. Canceled